



PATENT

Case Docket No. NIH211.001C1

Date: February 20, 2004

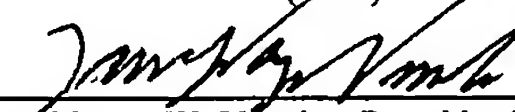
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Moss et al.  
Appl. No. : 10/646,628  
Filed : August 22, 2003  
For : MVA EXPRESSING  
MODIFIED HIV ENVELOPE,  
GAG, AND POL GENES  
Examiner : Unknown  
Group Art Unit : 1645

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

February 20, 2004

(Date)

  
Nancy W. Vensko, Reg. No. 36,298


TRANSMITTAL LETTER

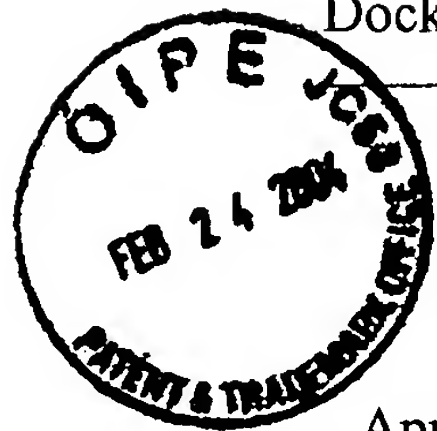
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement.
- (X) A PTO Form 1449 with twenty-eight (28) references.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

  
Nancy W. Vensko  
Registration No. 36,298  
Attorney of Record  
Customer No. 20,995  
(805) 547-5580



## INFORMATION DISCLOSURE STATEMENT

Applicant : Moss et al.  
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For : MVA EXPRESSING MODIFIED HIV  
ENVELOPE, GAG, AND POL GENES  
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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is form PTO-1449 listing 28 references.

This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

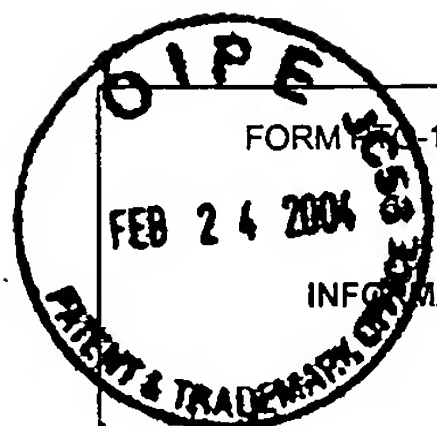
Respectfully submitted,  
KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: \_\_\_\_\_

2/20/04

By: \_\_\_\_\_

Nancy W. Vensko  
Registration No. 36,298  
Attorney of Record  
Customer No. 20,995  
(805) 547-5580



FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.  
NIH211.001C1APPLICATION NO.  
10/646,628INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

APPLICANT  
Moss et al.FILING DATE  
August 22, 2003GROUP  
1645

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1.	5,849,304	12/15/1998	Moss et al.			
	2.	5,185,146	02/09/1993	Altenburger			

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	3.	WO 01/47955 A2	07/05/2001	PCT				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
	4.	Allen, T.M. et al., 2000 "Induction of AIDS virus-specific CTL activity in fresh, unstimulated peripheral blood lymphocytes from rhesus macaques vaccinated with a DNA prime/modified vaccinia virus Ankara boost regimen" <i>J. Immunol.</i> <b>164</b> :4968-4978.
	5.	Amara, R.R. et al., 2001 "Control of a Mucosal Challenge and Prevention of AIDS by a Multiprotein DNA/MVA Vaccine" <i>Science</i> <b>292</b> : 69-74.
	6.	Barouch, D.H. et al., 2000 "Control of viremia and prevention of clinical AIDS in rhesus monkeys by cytokine-augmented DNA vaccination" <i>Science</i> <b>290</b> :486-492.
	7.	Egan, M.A. et al., 2000 "Simian immunodeficiency virus (SIV) gag DNA-vaccinated rhesus monkeys develop secondary cytotoxic T-lymphocyte responses and control viral replication after pathogenic SIV infection" <i>J. Virol.</i> <b>74</b> :7485-7495.
	8.	Gomez, C.E et al., 2001 "Recombinant proteins produced by vaccinia virus vectors can be incorporated within the virion (IMV form) into different compartments" <i>Arch Virol.</i> <b>146</b> (5):875-892.
	9.	Gorelick, R.J. et al., 1999 "Nucleocapsid protein zinc-finger mutants of Simian Immunodeficiency Virus strain Mne produce virions that are replication defective <i>in vitro</i> and <i>in vivo</i> " <i>Virology</i> <b>253</b> :259-270.
	10.	Goulder, P.J. et al., 1999 "Anti-HIV cellular immunity: recent advances towards vaccine design" <i>AIDS (Suppl. A)</i> <b>13</b> :S121-S136.
	11.	Hirsch, V.M. et al., 1995 "Limited virus replication following SIV challenge of macaques immunized with attenuated MVA vaccinia expressing SIVsm env and gag-pol" <i>Vaccines</i> <b>95</b> :195-200.
	12.	Hofmann-Lehmann, R. et al., 2000 "Sensitive and robust one-tube real-time reverse transcriptase-polymerase chain reaction to quantify SIV-RNA load: comparison of one- versus two-enzyme systems" <i>AIDS Res. Hum. Retroviruses</i> <b>16</b> :1247-1257.

EXAMINER

DATE CONSIDERED

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (USE SEVERAL SHEETS IF NECESSARY)	ATTY. DOCKET NO. NIH211.001C1	APPLICATION NO. 10/646,628
	APPLICANT Moss et al.	
	FILING DATE August 22, 2003	GROUP 1645

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
	13.	Karacostas, V. et al., 1989 "Human immunodeficiency virus-like particles produced by a vaccinia virus expression vector" <i>PNAS USA</i> 86:8964-8967.
	14.	Karlsson, G.B. et al., 1997 "Characterization of molecularly cloned simian-human immunodeficiency viruses causing rapid CD4 <sup>+</sup> lymphocyte depletion in rhesus monkeys" <i>J. Virol.</i> 71:4218-4225.
	15.	Lechner, F. et al., 2000 "Analysis of successful immune responses in persons infected with hepatitis C virus" <i>J. Exp. Med.</i> 191:1499-1512.
	16.	Mellors, J.W. et al., 1996 "Prognosis in HIV-1 infection predicted by the quantity of virus in plasma" <i>Science</i> 272:1167-1170.
	17.	Montefiori, D.C. et al., 1998 "Neutralizing antibodies in sera from macaques infected with chimeric Simian-Human Immunodeficiency Virus containing the envelope glycoproteins of either a laboratory-adapted variant or a primary isolate of Human Immunodeficiency Virus type 1" <i>J. Virol.</i> 72:3427-3431.
	18.	Montefiori, D.C. et al., 1988 "Evaluation of antiviral drugs and neutralizing antibodies to Human Immunodeficiency Virus by a rapid and sensitive microtiter infection assay" <i>J. Clin. Microbiol.</i> 26:231-235.
	19.	Moss, B. et al., 2000 "Retroviruses of human AIDS and related animal diseases" in: Colloque des Cent Gardes, 12th, Paris, France, Oct. 25-27, 1999, Meeting Date 1999, 105-107, Eds. M. Girard & B. Dodet, Editions Scientifiques et Medicales Elsevier, Paris, Fr. (Abstract).
	20.	Ourmanov I. et al., 2000 "Recombinant modified vaccinia virus Ankara expressing the surface gp120 of simian immunodeficiency virus (SIV) primes for a rapid neutralizing antibody response to SIV infection in macaques" <i>J Virol.</i> 74:2960-2965.
	21.	Ourmanov, I. et al., 2000 "Comparative efficacy of recombinant modified vaccinia virus Ankara expressing Simian Immunodeficiency Virus (SIV) Gag-Pol and/or Env in macaques challenged with pathogenic SIV" <i>J. Virol.</i> 74:2740-2751.
	22.	Power, C.A et al., 1999 "A valid ELISPOT assay for enumeration of <i>ex vivo</i> , antigen-specific, IFN $\gamma$ -producing T cells" <i>J. Immunol. Methods</i> 227:99-107.
	23.	Quinn, T.C. et al., 2000 "Viral load and heterosexual transmission of Human Immunodeficiency Virus type 1" <i>N. Engl. J. Med.</i> 342:921-929.
	24.	Robinson, H.L. et al., 2000 "AIDS Vaccines: heterologous prime/boost strategies for raising protective T cell responses" <i>AIDS Rev.</i> 2:105-110.
	25.	Robinson, H.L. et al., 1999 "Neutralizing antibody-independent containment of immunodeficiency virus challenges by DNA priming and recombinant pox virus booster immunizations" <i>Nature Med.</i> 5:526-534.
	26.	Sauter, M.M. et al., 1996 "An internalization signal in the Simian Immunodeficiency Virus transmembrane protein cytoplasmic domain modulates expression of envelope glycoproteins on the cell surface" <i>J. Cell Biol.</i> 132:795-811.

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	27.	Staprans, S. et al., 1996 "Quantitative methods to monitor viral load in Simian Immunodeficiency Virus infections" in: <u>Viral Genome Methods</u> , K. Adolph, Ed. (CRC Press, Boca Raton, FL, 1996), pp. 167-184.
	28.	Waldrop, S.L. et al., 1997 "Determination of antigen-specific memory/effector CD4 <sup>+</sup> T cell frequencies by flow cytometry: evidence for a novel, antigen-specific homeostatic mechanism in HIV-associated immunodeficiency" <i>J. Clin. Invest.</i> <b>99</b> :1739-1750.

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